FIG. 1

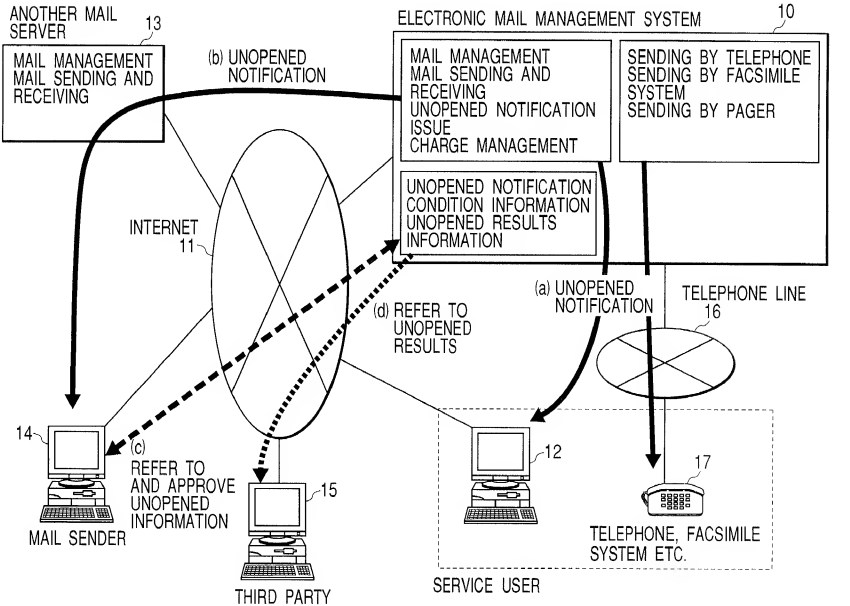

ANOTHER MAIL SERVER
13
MAIL MANAGEMENT
MAIL SENDING AND RECEIVING
(b) UNOPENED NOTIFICATION
ELECTRONIC MAIL MANAGEMENT SYSTEM
10
MAIL MANAGEMENT
MAIL SENDING AND RECEIVING
UNOPENED NOTIFICATION ISSUE
CHARGE MANAGEMENT
SENDING BY TELEPHONE
SENDING BY FACSIMILE SYSTEM
SENDING BY PAGER
UNOPENED NOTIFICATION CONDITION INFORMATION
UNOPENED RESULTS INFORMATION
INTERNET
11
(a) UNOPENED NOTIFICATION
TELEPHONE LINE
16
(d) REFER TO UNOPENED RESULTS
14
(c)
REFER TO AND APPROVE UNOPENED INFORMATION
MAIL SENDER
15
THIRD PARTY
12
17
TELEPHONE, FACSIMILE SYSTEM ETC.
SERVICE USER

FIG. 2

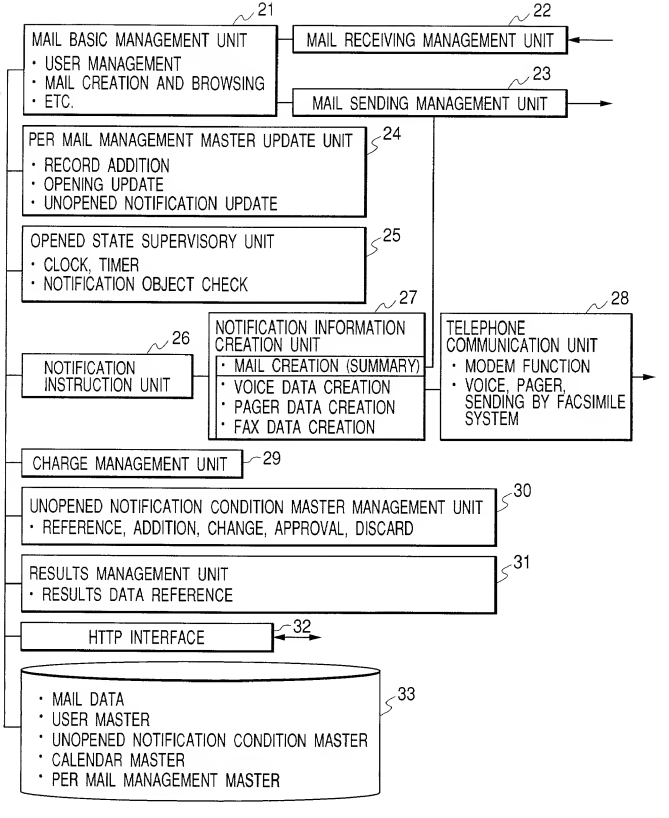

21
MAIL BASIC MANAGEMENT UNIT
• USER MANAGEMENT
• MAIL CREATION AND BROWSING
• ETC.
22
MAIL RECEIVING MANAGEMENT UNIT
23
MAIL SENDING MANAGEMENT UNIT
PER MAIL MANAGEMENT MASTER UPDATE UNIT
• RECORD ADDITION
• OPENING UPDATE
• UNOPENED NOTIFICATION UPDATE
24
OPENED STATE SUPERVISORY UNIT
• CLOCK, TIMER
• NOTIFICATION OBJECT CHECK
25
26
NOTIFICATION INSTRUCTION UNIT
27
NOTIFICATION INFORMATION CREATION UNIT
• MAIL CREATION (SUMMARY)
• VOICE DATA CREATION
• PAGER DATA CREATION
• FAX DATA CREATION
28
TELEPHONE COMMUNICATION UNIT
• MODEM FUNCTION
• VOICE, PAGER, SENDING BY FACSIMILE SYSTEM
CHARGE MANAGEMENT UNIT
29
UNOPENED NOTIFICATION CONDITION MASTER MANAGEMENT UNIT
• REFERENCE, ADDITION, CHANGE, APPROVAL, DISCARD
30
RESULTS MANAGEMENT UNIT
• RESULTS DATA REFERENCE
31
HTTP INTERFACE
32
• MAIL DATA
• USER MASTER
• UNOPENED NOTIFICATION CONDITION MASTER
• CALENDAR MASTER
• PER MAIL MANAGEMENT MASTER
33

FIG. 3

UNOPENED NOTIFICATION CONDITION MASTER

| USER | SENDING SOURCE | KEYWORD | UNOPENED TIME LIMIT | NOTIFICATION DESTINATION TYPE | NOTIFICATION METHOD TYPE | NOTIFICATION DESTINATION | CALENDAR | APPROVAL FLAG |
|---|---|---|---|---|---|---|---|---|
| matu@xxx | yama@yyy | URGENT | 0:05 | LOCAL | TELEPHONE | 090-xxxx-xxxx | NONE | — |
| matu@xxx | yama@yyy | | 0:30 | LOCAL | MAIL FULL TEXT | matu2@aaa | cal1 | — |
| matu@xxx | yama@yyy | | 1:00 | LOCAL | TELEPHONE | 03-zzzz-zzzz | cal1 | — |
| matu@xxx | yama@yyy | REQUESTED | 1:30 | LOCAL | PAGER | 03-aaaa-aaaa | cal1 | — |
| matu@xxx | yama@yyy | | 2:00 | REMOTE | MAIL SUMMARY | yama@zzz | cal2 | — |
| matu@xxx | *@zzz | | 0:30 | LOCAL | FAX | 03-yyyy-yyyy | cal1 | — |
| matu@xxx | *@zzz | | 2:00 | REMOTE | MAIL SUMMARY | SENDING SOURCE REPLY | cal2 | — |
| tana@xxx | * | EMERGENCY | 1:00 | LOCAL | MAIL SUMMARY | tana2@aaa | cal3 | — |
| tana@xxx | * | EMERGENCY | 2:00 | REMOTE | MAIL SUMMARY | SENDING SOURCE REPLY | cal3 | — |
| wata@xxx | yama@yyy | | 2:00 | REMOTE | MAIL SUMMARY | yama@zzz | cal2 | UNAPPROVED |



FIG. 4

CALENDAR MASTER

| USER | CALENDAR TYPE | DATE | OUT-OF-OBJECT STARTING TIME | OUT-OF-OBJECT ENDING TIME |
|---|---|---|---|---|
| matu@xxx | cal1 | EVERY MONDAY | 0:00 | 8:00 |
| matu@xxx | cal1 | EVERY MONDAY | 18:00 | 24:00 |
| matu@xxx | cal1 | EVERY SUNDAY | 0:00 | 24:00 |
| matu@xxx | cal2 | 2001/1/26 | 0:00 | 24:00 |
| tana@xxx | cal3 | EVERY SUNDAY | 0:00 | 24:00 |

FIG. 5

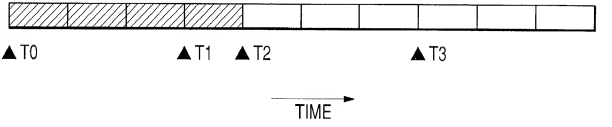



FIG. 6

PER MAIL MANAGEMENT MASTER

| USER | MAIL MANAGEMENT ID | SENDING SOURCE | UNOPENED TIME LIMIT | NOTIFICATION DESTINATION TYPE | NOTIFICATION METHOD TYPE | NOTIFICATION DESTINATION | OPENING TIME | POST FLAG | NOTIFICATION CHARGE |
|---|---|---|---|---|---|---|---|---|---|
| matu@xxx | M0001 | yama@yyy | 1/12 13:05 | LOCAL | TELEPHONE | 090-xxxx-xxxx | 1/12 14:20 | POSTED | 30 |
| matu@xxx | M0001 | yama@yyy | 1/12 13:30 | LOCAL | MAIL FULL TEXT | matu2@aaa | 1/12 14:20 | POSTED | 10 |
| matu@xxx | M0001 | yama@yyy | 1/12 14:00 | LOCAL | TELEPHONE | 03-zzzz-zzzz | 1/12 14:20 | POSTED | 10 |
| matu@xxx | M0001 | yama@yyy | 1/12 14:30 | LOCAL | PAGER | 03-aaaa-aaaa | 1/12 14:20 | UNPOSTED | |
| matu@xxx | M0001 | yama@yyy | 1/12 15:00 | REMOTE | MAIL SUMMARY | yama@zzz | 1/12 14:20 | UNPOSTED | |
| matu@xxx | M0002 | kato@zzz | 1/12 13:30 | LOCAL | FAX | 03-yyyy-yyyy | | POSTED | 20 |
| matu@xxx | M0002 | kato@zzz | 1/12 15:00 | REMOTE | MAIL SUMMARY | kato@zzz | | UNPOSTED | |
| tana@xxx | M0003 | sato@xxx | 1/12 14:00 | LOCAL | MAIL SUMMARY | tana2@aaa | | POSTED | 5 |
| tana@xxx | M0003 | sato@xxx | 1/12 15:00 | REMOTE | MAIL SUMMARY | sato@xxx | | POSTED | 5 |

FIG. 7

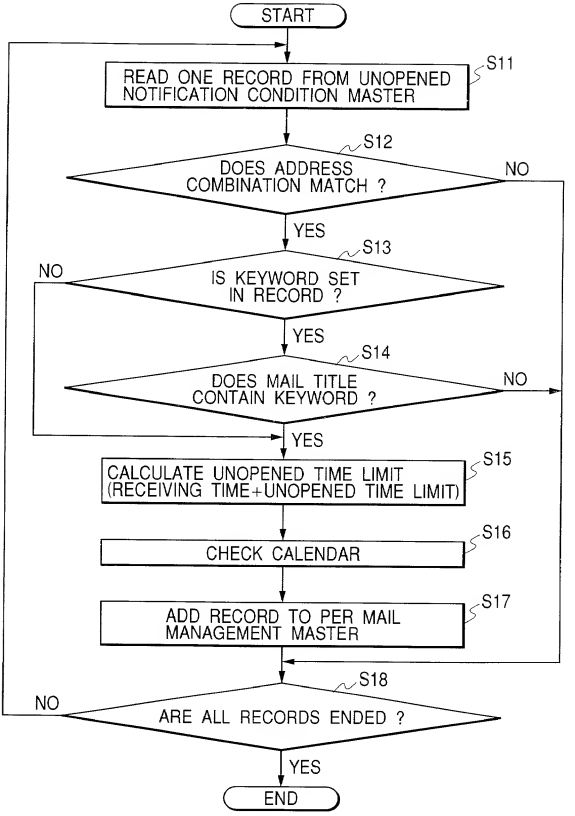

START
READ ONE RECORD FROM UNOPENED NOTIFICATION CONDITION MASTER
S11
DOES ADDRESS COMBINATION MATCH ?
S12
NO
YES
IS KEYWORD SET IN RECORD ?
S13
NO
YES
DOES MAIL TITLE CONTAIN KEYWORD ?
S14
NO
YES
CALCULATE UNOPENED TIME LIMIT (RECEIVING TIME+UNOPENED TIME LIMIT)
S15
CHECK CALENDAR
S16
ADD RECORD TO PER MAIL MANAGEMENT MASTER
S17
ARE ALL RECORDS ENDED ?
S18
NO
YES
END

FIG. 8

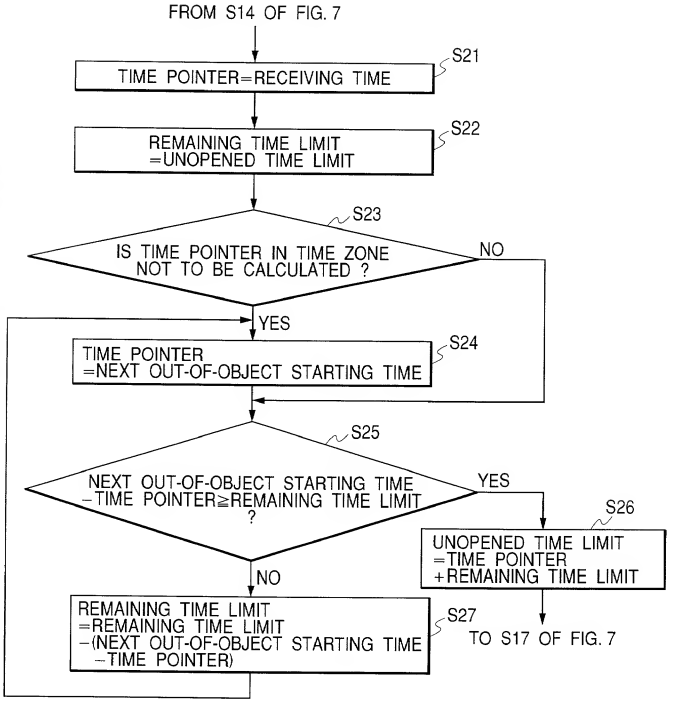

FROM S14 OF FIG. 7
S21
TIME POINTER=RECEIVING TIME
S22
REMAINING TIME LIMIT
=UNOPENED TIME LIMIT
S23
IS TIME POINTER IN TIME ZONE
NOT TO BE CALCULATED ?
NO
YES
S24
TIME POINTER
=NEXT OUT-OF-OBJECT STARTING TIME
S25
NEXT OUT-OF-OBJECT STARTING TIME
−TIME POINTER≧REMAINING TIME LIMIT
?
YES
S26
UNOPENED TIME LIMIT
=TIME POINTER
+REMAINING TIME LIMIT
NO
REMAINING TIME LIMIT
=REMAINING TIME LIMIT
−(NEXT OUT-OF-OBJECT STARTING TIME
−TIME POINTER)
S27
TO S17 OF FIG. 7

FIG. 9

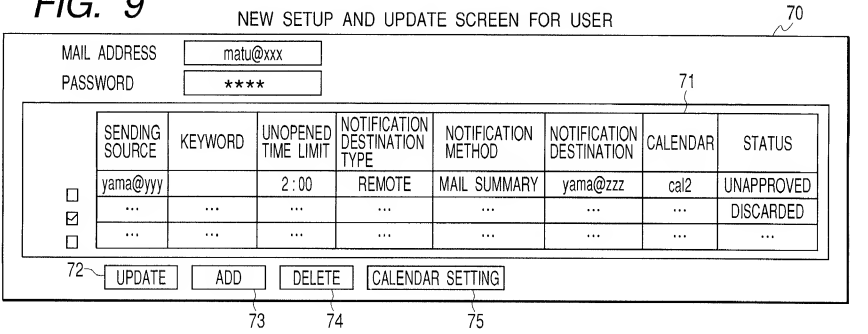
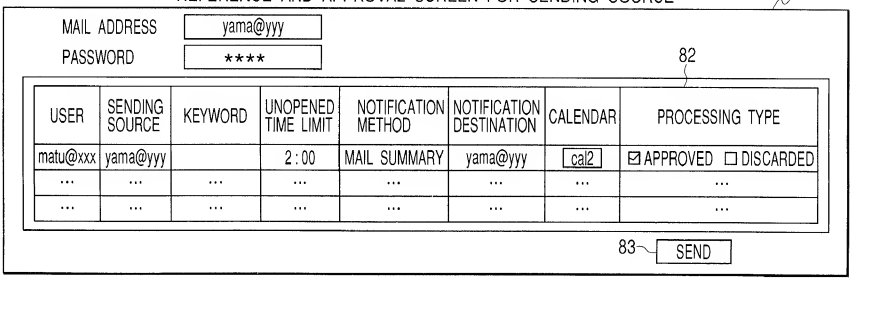

NEW SETUP AND UPDATE SCREEN FOR USER
70
MAIL ADDRESS
matu@xxx
PASSWORD
****
71
SENDING SOURCE
KEYWORD
UNOPENED TIME LIMIT
NOTIFICATION DESTINATION TYPE
NOTIFICATION METHOD
NOTIFICATION DESTINATION
CALENDAR
STATUS
yama@yyy
2:00
REMOTE
MAIL SUMMARY
yama@zzz
cal2
UNAPPROVED
DISCARDED
72
UPDATE
ADD
DELETE
CALENDAR SETTING
73
74
75

FIG. 10


REFERENCE AND APPROVAL SCREEN FOR SENDING SOURCE
80
MAIL ADDRESS
yama@yyy
PASSWORD
****
82
USER
SENDING SOURCE
KEYWORD
UNOPENED TIME LIMIT
NOTIFICATION METHOD
NOTIFICATION DESTINATION
CALENDAR
PROCESSING TYPE
matu@xxx
yama@yyy
2:00
MAIL SUMMARY
yama@yyy
cal2
APPROVED
DISCARDED
83
SEND